Advances in Rheumatology

CORRESPONDENCE

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Brazilian Society of Rheumatology and Brazilian Society of Clinical Pathology/Laboratory Medicine recommendation for serum uric acid test reports on patients undergoing treatment for gout

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Gout is the most common form of inflammatory joint disease in humans [1, 2]. In recent decades, its prevalence has increased due to various factors: dietary habits, increased longevity, the use of hyperuricemic drugs, chronic kidney disease, and metabolic syndrome [1, 2]. Gout is a chronic disease caused by the deposition of monosodium urate (MSU) crystals in various tissues, manifesting as painful and potentially destructive arthritis in the context of hyperuricaemia [2–4]. Population studies in healthy individuals indicate a normal distribution of serum uric acid levels ranging from 3.4 to 7 mg/dL. However, hyperuricemia is defined as a serum urate concentration that exceeds its solubility at normal pH, body temperature, and sodium concentration [5]. The solubility threshold for uric acid is typically 6.8 mg/dL, but in peripheral joints, where body temperature is lower, the threshold is even lower. Therefore, during the treatment of gout, it is recommended that serum urate levels be maintained below 6 mg/dL [2–5]. Adequate control of hyperuricemia is crucial for preventing painful and disabling acute gout attacks. Both the prevention of precipitation and the resorption of already deposited MSU crystals depend on maintaining a serum uric acid level below its solubility threshold. In light of this, the Brazilian Society of Rheumatology and the Brazilian Society of Clinical Pathology/Laboratory Medicine recommend that serum uric acid test reports include a note stating that "*In patients undergoing treatment for gout, serum uric acid levels below 6 mg/dL are recommended*". This therapeutic target (serum uric acid level < 6 mg/dL), which is well-supported in clinical practice, provides both physicians and patients with a clear and actionable goal, improving the monitoring and management of gout.

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Funding
No financial support.

Data availability
No datasets were generated or analysed during the current study.

Declarations

Ethical approval
Not applicable.

Consent for publication
All authors consented to publication.

Competing interests
The authors declare no competing interests.

Received: 3 September 2024 / Accepted: 12 September 2024
Published online: 26 September 2024

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